

**REMARKS**

In response to the Office Action dated November 1, 2005, Applicant respectfully requests reconsideration and withdrawal of the rejection of claims 1-3, 6-8, 11 and 13. The indication that claims 4, 5, 9, 10, 12 and 14 contain allowable subject matter is noted with appreciation. In response thereto, claims 12 and 14 have been re-written in independent form.

Claims 1-3, 6-8, 11 and 13 were rejected under 35 U.S.C. §103, on the grounds that they were considered to be unpatentable over the Yamagishi et al patent (U.S. 5,157,523) in view of the Weber patent (U.S. 6,590,707). The Yamagishi patent was cited as disclosing a projection-type liquid crystal display unit with retardation compensators for each of three primary color lights, with the retardation compensator for the primary color light of the shortest wavelength having a different retardation value from the compensators for the other primary colors. The Office Action acknowledges that the Yamagishi patent does not disclose that the retardation compensator for the primary color of the shortest wavelength has a different physical dimension from the other compensators.

To this end, therefore, the Office Action relies upon the Weber patent, with specific reference to the structure shown in Figure 2, and the discussion of the graph shown in Figure 3. It is respectfully submitted, however, that this patent does not teach that different retardation values are achieved by changing the physical dimension of the retardation compensator, as asserted in the Office Action. Rather, the patent teaches that the retardation value of a birefringent optical layer can be changed by varying the *composition* of such a layer.

More particularly, with reference to Figure 2, the Weber patent discloses a birefringent optical layer 14 that is comprised of high and low index microlayers 16 and 18, respectively. Figure 3 of the patent illustrates that the birefringence of the layer 14 as a whole varies in accordance with the fractional thickness, i.e., the proportion, of the layer 14 that is comprised of the low index microlayers 18. Specifically, the figure illustrates that the birefringence, i.e. the difference between the indices  $n_o$  and  $n_e$ , is greatest when the low index microlayers 18 constitute about 50% of the overall thickness of the layer 14.

The Weber patent does not contain any discussion of the physical dimension of the birefringent optical layer 14, per se. In particular, it does not disclose that the retardation value, or birefringence, of the layer 14 is related to the physical dimension of that layer, e.g., its thickness. Rather, Figure 3 and the discussion pertaining thereto disclose that the birefringence is dependent upon the *ratio* of the layers 16 and 18, respectively, that make up the birefringent layer 14. In other words, the patent discloses that it is the *composition* of the layer 14 that determines its birefringence value. It does not say anything about the physical dimension of the layer 14.

More importantly, the Weber patent discloses that the birefringence of the layer 14 can be changed by using different *materials*. At column 7, lines 13-14, the patent states "Even larger values of birefringence can be obtained by using alternating layers having a greater index difference." This portion of the patent goes on to disclose that the use of silicon for the high index microlayers, and silicon dioxide for the low index layers 18, produces greater values of birefringence, as illustrated in Figure 4.

If one were to employ the teachings of the Weber patent in the structure of the Yamagishi patent, the logical combination would be to employ the composite birefringent optical layer 14 of the Weber patent as the phase plate 3a and/or 3b in the structure of the Yamagishi patent. Neither of these patents teaches that the retardation value of such a phase plate should be varied by changing its physical dimension. Rather, in accordance with the teachings of the Weber patent, changes in retardation value are accomplished by changing the proportion of low index micro layers to high index microlayers within the plate, and/or changing the materials that make up those microlayers.


Accordingly, it is respectfully submitted that the Yamagishi and Weber patents do not suggest the claimed subject matter, even when their disclosures are considered in combination. Specifically, neither patent discloses that a retardation compensator that is associated with the primary color light having the shortest wavelength should be provided with a different physical dimension from retardation compensators for other primary colors.

Reconsideration and withdrawal of the rejection of claims 1-3, 6-8, 11 and 13, and allowance of all pending claims, is respectfully requested.

Respectfully submitted,

BUCHANAN INGERSOLL PC

Date: January 31, 2006

By:   
James A. LaBarre  
Registration No. 28,632

P.O. Box 1404  
Alexandria, Virginia 22313-1404  
(703) 836-6620